CHAPTER V

CITATIONS

A. Pre-Citation Consultation.

- 1. <u>General.</u> In order to ensure uniformity, consistency, and the legal adequacy of a limited category of citation items, there shall be appropriate consultation between Supervisors, Program Managers, the Director of Compliance, the Secretary and Legal Staff.
- 2. <u>Procedures.</u> Consultation in accordance with state procedures shall occur when the citation items could involve important, novel or complex litigation in which the Director would expect the investment of major litigation resources.
 - a. Categories of cases where consultation shall occur are as follows:
 - (1) All willful violations and certain general duty clause citations in accordance with the instructions given in Chapter IV especially those presenting novel or complex questions of law, such as general duty health citations;
 - (2) Complex KRS Chapter 338.021 preemption questions:
 - (3) Cases arising under newly promulgated safety and health standards;
 - (4) Cases of significant public concern such as catastrophes;
 - (5) Cases which are likely to become major litigation vehicles in the development of KY-OSH law;
 - (6) Categories of cases designated by the General Counsel as being appropriate for pre-citation consultation for reasons of litigation strategy or the elimination of unnecessary duplication of effort;
 - (7) In addition, the supervisor may request appropriate consultation with the Director or the General Counsel in other cases not listed in the above categories.
 - b. Pre-citation consultation shall be conducted at the earliest stage possible of a KY-OSH Program investigation in order to assist in developing an

investigation strategy, particularly in cases involving fatalities, catastrophes and cases of significant public concern.

- c. If a case involves some citation items which warrant pre-citation consultation and others which do not, the Program Manager may issue the routine citation items promptly and delay the issuance only of those items which require pre-citation consultation.
- d. Where required as a result of pre-citation consultation, the Supervisor will undertake additional investigation, which may involve obtaining expert assistance.
- e. Nothing in the above procedures shall affect KY-OSH Program's responsibility and final authority to issue citations.

B. Writing Citations.

- 1. General. The time which has elapsed from the completion of the inspection or investigation until the issuance of citation(s) shall be closely monitored and kept as short as possible by the Supervisor.
 - (1) The Director shall issue citations as soon as practicable after an inspection for safety violations and for health violations which do not require laboratory analysis of samples.
 - (2) When potential health violations require the receipt of laboratory results before they can be cited, a later citation shall be issued as soon as possible after the results are received.
- Specific Instructions. The proper writing of citations is an essential part of the enforcement process. Specific instructions on how to complete the Citation and Notification of Penalty, KY-OSH-2 Form, are contained in the Integrated Management Information Systems (IMIS) Forms Manual.
 - a. Standards and Regulations. After identifying a hazardous condition, the CSHO shall review existing standards and regulations to ensure that the hazardous condition noted is covered within the scope and application of the standard. Citations shall not be issued unless the citation is based on mandatory language in KY-OSH Program standards and, when applicable, in referenced standards. Standards legally incorporated by reference have the same force and effect as KY-OSH Program standards. (See 29 CFR 1910.6)

- b. <u>SAVEs Manual</u>. The Standard Alleged Violation Elements (SAVEs) are incorporated into a manual that is used in conjunction with automated citation processing procedures. (See OSHA Instructions CPL 2.32A, 2.34 and 2.35.) Instructions on the use of SAVEs are contained in Chapter V, Appendix.
- c. Alternative Standards. In rare cases, the same factual situation may present a possible violation of more than one standard. For example, the facts which support a violation of 29 CFR 1910.28(a)(1) may also support a violation of 1910.132(a) if no scaffolding is provided when it should be and the use of safety belts is not required by the employer.
 - (1) Where it appears that more than one standard is applicable to a given factual situation and that compliance with any of the applicable standards would effectively eliminate the hazard, it is permissible to cite alternative standards using the words "in the alternative." A reference in the citation to each of the standards involved shall be accompanied by a separate Alleged Violation Description (AVD) which clearly alleges all of the necessary elements of a violation of that standard.
 - (2) Where violations are alleged in the alternative, only one penalty, not one penalty for each standard cited, shall be proposed for the violative condition.
 - NOTE: The general duty clause may be cited in the alternative when a specific standard is cited to cover situations where the cited standard may not apply. (See Chapter IV, A.2.d.(1)(c); but see also A.2.c.(1).)
- d. Ordering of Violations on the Citation. Violations shall be written in the numerical order in which they appear in the standards. Grouped violations shall also be written in the same order. If penalties are to be proposed for grouped violations, the penalty shall be written across from the first violation item appearing on the KY-OSH-2. (See B.2.)
- C. Grouping and Combining of Violations.
 - <u>Definitions</u>. For the purpose of this section the following definitions apply:

- a. <u>Combining</u>. The gathering of all instances of violations of a specific standard into one citation item during the inspection/investigation of a single establishment or worksite.
- b. <u>Grouping</u>. The joining of violations of two or more specific standards under one citation item during the inspection/investigation of a single establishment or worksite.
- 2. Combining. Violations of a single standard having the same classification found during the inspection of an establishment or worksite generally shall be combined into one alleged citation item. Different options of the same standard shall also be combined. Each instance of the violation shall be separately set out within that item of the citation. Other-than-serious violations of a standard may be combined with serious violations of the same standard when appropriate.
 - a. Except for standards which deal with many unrelated hazards (e.g., Tables Z-1, Z-2 and Z-3 cited under 29 CFR 1910.1000 (a), (b), or (c)), the same standard may not be cited more than once on a single citation. The same standard may be cited on different citations on the same inspection, however.
 - b. For the purpose of applying these guidelines in the construction industry, an establishment is normally the site of the construction job; e.g., the building site, the dam site, etc. Where the construction site extends over a large geographical area; e.g., road building, the entire site shall be considered a single establishment; and all instances of the same violation with the same classification discovered during a single inspection shall normally constitute one alleged violation.
 - EXAMPLE 1. During the inspection of a single establishment, the CSHO documents five instances of unguarded open-sided platforms in five different locations throughout the facility in serious violation of 29 CFR 1910.23(c)(1). These five instances of the violation are combined into one serious citation item containing five subparts (a, b, c, d, e).
 - EXAMPLE 2. During the inspection of a single establishment, the CSHO documents three instances of unguarded open-sided platforms and two instances of platforms without required toe-boards in different locations throughout the facility in serious violation of 29 CFR 1910.23(c)(1). These five instances of the violation are combined into one serious citation item using the two options of 29 CFR 1910.23 (c)(1) listed in

the SAVEs Manual.

- EXAMPLE 3. During the inspection of a single establishment, the CSHO documents five instances of unguarded open-sided platforms in five different locations throughout the facility. Three instances are classified as serious and two as other-than-serious. The three serious instances are combined into one serious item. The two other-than-serious instances are either combined into one other-than-serious item or grouped with the serious item, when appropriate.
- 3. Grouping. When a source of a hazard is identified which involves interrelated violations of different standards, the violations may be grouped into a single item.
 - a. When to Group. The following situations normally call for grouping violations:
 - (1) Grouping Related Violations. When the CSHO believes that violations classified either as serious or as other-than-serious are so closely related as to constitute a single hazardous condition, the violations may be grouped into one citation item.
 - EXAMPLE: 29 CFR 1910.215 (a)(2), (a)(4), and (b)(9) may be grouped into one citation item.
 - Grouping Other-than-Serious Violations Where Grouping Results in a Serious Violation. When two or more individual violations are found which, if considered individually represent other-than-serious violations, but if grouped create a substantial probability of death or serious physical harm, the violations may be grouped and alleged as a single serious violation.
 - Where Grouping Results in Higher Gravity (3) Other-than-Serious Violation. Where the CSHO finds during the course of the inspection that a number of other-than-serious violations are present in the same piece of equipment which, considered in relation to each other affect the overall gravity of possible injury resulting from an accident involving the combined violations, then they may be grouped. violations may be grouped in a manner similar to that indicated in the preceding paragraph, although the resulting citation will be for an other-than-serious violation
 - (4) Violations of Posting and Recordkeeping

Requirements. Violations of the posting and recordkeeping requirements which involve the same document; e.g., KY-OSH-200 Form was not posted or maintained, shall normally be grouped for penalty purposes. (See Chapter VI, B.16.d. for penalty amounts.)

- b. When Not to Group. There are times when grouping is normally inappropriate.
 - (1) Single Inspection. Only violations discovered in a single inspection of a single establishment or worksite may be grouped. An inspection in the same establishment or at the same worksite shall be considered a single inspection even if it continues for a period of more than one day or is discontinued with the intention of resuming it after a short period of time if only one KY-OSH-1 is completed.
 - Separate Inspection of the Same Establishment. (2) Where inspections of the same establishment of an employer are conducted on two different occasions and instances of the same violation are disclosed during each inspection, the second instance of such violation shall not normally be grouped with the first instance even if a citation for the first has not yet been issued. Depending on the conditions found during the second inspection, however, such second instances may constitute grounds for a repeated or a willful violation. Where a followup inspection is conducted to determine whether a violation has been abated, it will normally be appropriate to issue a notice of failure to abate where one instance or more of the cited violations remains uncorrected.
 - Separate Establishments of the Same Employer.
 Where inspections are conducted, either at the same time or different times, at two establishments of the same employer and instances of the same violation are discovered during each inspection, the employer shall be issued separate citations for each establishment.
 - (4) General Duty Clause Violations. Because KRS Chapter 338.031(1)(a) of the Law is cited so as to cover all aspects of a serious hazard for which no standard exists, no grouping of separate General Duty Clause violations is permitted. (See Chapter IV, A.2.b.(1)(a).) This provision, however, does not prohibit grouping

- a General Duty violation with a related violation of a specific standard.
- (5) <u>Serious Violations</u>. As noted in C.3.a.(1), a serious violation may be grouped or cited separately as conditions warrant. Serious violations that are not so closely related as to constitute a single violative condition shall not be grouped.
- (6) Egregious Violations. Violations which are proposed as violation-by-violation citations shall not normally be combined or grouped. (See Chapter VI, B.9.d. and OSHA Instruction CPL 2.80.)

D. Employer/Employee Responsibilities.

- 1. KRS Chapter 338.031 (2). "Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to the Law which are applicable to his own actions and conduct."
 - a. The Law does not provide for the issuance of citations or the proposal of penalties against employees. Employers are responsible for employee compliance with the standards.
 - b. Although the employer is not the absolute guarantor or insurer of all employee actions, reasonable steps must be taken by the employer to protect employees from hazards that may result from failure to comply with the standards; e.g., informing employees of hazards and how to protect themselves, enforcing safety and health rules, and the like.
- 2. Employee Refusal to Comply. In cases where the CSHO determines that employees are systematically refusing to comply with a standard applicable to their own actions and conduct, the matter shall be referred to the Program Manager who shall consult the Director. Under no circumstances is the CSHO to become involved in an onsite dispute involving labor-management issues or interpretation of collective-bargaining agreements. The CSHO is expected to obtain enough information to understand whether the employer is using all appropriate authority to ensure compliance with the Law. Concerted refusals to comply will not bar the issuance of an appropriate citation where the employer has failed to exercise full authority to the maximum extent reasonable, including discipline and discharge.

E. Affirmative Defenses.

- 1. <u>Definition</u>. An affirmative defense is any matter which, if established by the employer, will excuse the employer from a violation which has otherwise been proved by the CSHO.
- 2. Burden of Proof. Although affirmative defenses must be proved by the employer at the time of the hearing, the KY-OSH Program must be prepared to respond whenever the employer is likely to raise or actually does raise an argument supporting such a defense. The CSHO, therefore, shall keep in mind the potential affirmative defenses that the employer may make and, when appropriate, attempt to gather contrary evidence.
- 3. Explanations. The following are explanations of the more common affirmative defenses with which the CSHO shall become familiar. There are other affirmative defenses besides these, but they are less frequently raised or are such that the facts which can be gathered during the inspection are minimal.
 - a. <u>Unpreventable Employee Misconduct or "Isolated Event".</u>
 The violative conduct was:
 - (1) Unknown to the employer; and
 - (2) In violation of an adequate work rule which was effectively communicated and uniformly enforced.

EXAMPLE: An unguarded table saw is observed. The saw, however, has a guard which is reattached while the CSHO watches. Facts which the CSHO shall document may include: Who removed the guard and why? Did the employer know that the guard had been removed? How long or how often had the saw been used without guards? Did the employer have a work rule that the saw guards not be removed? How was the work rule communicated? Was the work rule enforced?

- b. <u>Impossibility</u>. Compliance with the requirements of a standard is:
 - (1) Functionally impossible or would prevent performances of required work; and
 - (2) There are no alternative means of employee protection.

EXAMPLE: During the course of the inspection an unquarded table saw is observed. The employer states that the nature of its work makes a guard unworkable. Facts which the CSHO shall document may include: Would a guard make performance of the work impossible or

merely more difficult? Could a guard be used part of the time? Has the employer attempted to use guards? Has the employer considered alternative means or methods of avoiding or reducing the hazard?

- c. <u>Greater Hazard</u>. Compliance with a standard would result in greater hazards to employees than noncompliance and:
 - (1) There are no alternative means of employee protection; and
 - (2) An application of a variance would be inappropriate.

EXAMPLE: The employer indicates that a saw guard had been removed because it caused particles to be thrown into the operator's face. Facts which the CSHO shall consider may include: Was the guard used properly? Would a different type of guard eliminate the problem? How often was the operator struck by particles and what kind of injuries resulted? Would safety glasses, a face mask, or a transparent shelf attached to the saw prevent injury? Was operator technique at fault and did the employer attempt to correct it? Was a variance sought?

d. <u>Documentation Requirements</u>. Where it becomes evident, either from statements made during the inspection by the employer or other persons or from the circumstances surrounding the apparent violation(s) that one or more of the above affirmative defenses may be an issue, the CSHO shall make reasonable efforts to gather and record facts relevant to the defense. The CSHO shall bring the documentation of the hazards and facts related to possible affirmative defenses to the attention of the supervisor. Where it appears that each and every element of an affirmative defense is present, the Program Manager may decide, after consultation with the Director and General Counsel, that a citation shall not be issued.

F. Issuing Citations - Special Circumstances.

1. Followup Inspections. Followup inspections may be conducted during the 15-day notice of contest period provided the employer has not actually filed such a notice. Normally, however, only those conditions considered high gravity serious shall be subject to being scheduled for followup during the contest period. If such a followup inspection reveals a failure to abate, and the time specified for abatement was passed, a Notification of Failure to Abate Alleged Violation (KY-OSH-2B) may be issued immediately without regard to the contest period

of the initial citation.

- 2. <u>Multiemployer Worksites</u>. On multiemployer worksites, both construction and nonconstruction, citations normally shall be issued to employers whose employees are exposed to hazards (the exposing employer).
 - a. Additionally, the following employers normally shall be cited, whether or not their own employees are exposed:
 - (1) The employer who actually creates the hazard (the creating employer);
 - (2) The employer who is responsible, by contract or through actual practice, for safety and health conditions on the worksite; i.e., the employer who has the authority for ensuring that the hazardous condition is corrected (the controlling employer);
 - (3) The employer who has the responsibility for actually correcting the hazard (the correcting employer).
 - b. It must be shown that each employer to be cited has knowledge of the hazardous condition or could have had such knowledge with the exercise of reasonable diligence. (See Chapter IV, B.1.b.(4).)
 - c. Prior to issuing citations to an exposing employer, it must first be determined whether the available facts indicate that employer has a legitimate defense to the citation, as set forth below:
 - The employer did not create the hazard;
 - (2) The employer did not have the responsibility or the authority to have the hazard corrected;
 - (3) The employer did not have the ability to correct or remove the hazard;
 - (4) The employer can demonstrate that the creating, the controlling and/or the correcting employers, as appropriate, have been specifically notified of the hazards to which his/her employees are exposed;
 - (5) The employer has instructed his/her employees to recognize the hazard and, where necessary, informed them how to avoid the dangers associated with it when the hazard was known or with the exercise of reasonable diligence could

have been known.

- (a) Where feasible, an exposing employer must have taken appropriate alternative means of protecting employees from the hazard.
- (b) When extreme circumstances justify it, the exposing employer shall have removed his/her employees from the job to avoid citation.

NOTE: All of these items must be documented in the case file. (See Chapter III, D.8.a.(5)(b)3.)

- d. If an exposing employer meets all the conditions in F.2.c., that employer shall not be cited. If all employers on a worksite with employees exposed to a hazard meet these conditions, then the citation shall be issued only to the employers who are responsible for creating the hazard and/or who are in the best position to correct the hazard or to ensure its correction. In such circumstances the controlling employer and/or the hazard-creating employer shall be cited even though no employees of those employers are exposed to the violative condition. (See, however, F.2.e.) Penalties for such citations shall be calculated as indicated in Chapter VI, using the exposed employees of all employers as the number of employees for probability assessment.
- e. In the case of general duty clause violations, only employer(s) whose own employees are exposed to the violation may be cited. (See Chapter IV, A.2.b.(1)(b).)
- 3. <u>Violation-by-Violation</u>. Whenever violation-by-violation citations are to be proposed, procedures found in OSHA Instruction CPL 2.80 shall be followed.
- G. Amending or Withdrawing Citation and Notification of Penalty in Part or In Its Entirety.
 - 1. <u>Citation Revision Justified</u>. Amendments to or withdrawal of a citation shall be made when information is presented to the Director which indicates a need for such revision under certain conditions which may include:
 - a. Administrative or technical error.
 - (1) Citation of an incorrect standard.
 - (2) Incorrect or incomplete description of the alleged violation.

- b. Additional facts establish a valid affirmative defense.
- c. Additional facts establish that there was no employee exposure to the hazard.
- d. Additional facts establish a need for modification of correction date, penalty or reclassification of citation items.
- 2. <u>Citation Revision Not Justified</u>. Amendments to or withdrawal of a citation shall not be made by the Director under certain conditions which include:
 - a. Valid notice of contest received. (See, however, H.3.)
 - b. The 15 working days for filing a notice of contest has expired and citation has become a final order.
 - c. Employee representatives have not been given the opportunity to present their views unless the revision involves only an administrative or technical error.
 - d. Editorial and/or stylistic modifications.
- 3. <u>Procedures for Amending or Withdrawing Citations</u>. The following procedures are to be followed in amending or withdrawing citations:
 - a. Withdrawal of or modifications to the citation and notification of penalty, shall normally be accomplished by means of an informal settlement agreement and shall follow the guidelines in H. Examples of exceptions are changes initiated by the Director without an informal conference (e.g., changes of the type referred to in G.1.a.). In such cases the procedures given below shall be followed.
 - b. If proposed amendments to citation items change the classification of the items; e.g., serious to other-than-serious, the original citation items shall be withdrawn and new, appropriate citation items issued.
 - c. The amended Citation and Notification of Penalty Form (KY-OSH-2) shall clearly indicate that:
 - (1) The employer is obligated under the Law to post the amendment to the citation along with the original citation until the amended violation has been corrected or for 3 working days, whichever is longer;
 - (2) The period of contest of the amended portions

of the KY-OSH-2 will begin from the day following the date of receipt of the amended Citation and Notification of Penalty; and

- (3) The contest period is not extended as to the unamended portions of the original citation.
- d. A copy of the original citation shall be attached to the amended Citation and Notification of Penalty Form when the amended form is forwarded to the employer.
- e. When circumstances warrant it, a citation may be withdrawn in its entirety by the Director. Justifying documentation shall be placed in the case file. If a citation is to be withdrawn, the following procedures apply:
 - (1) A letter withdrawing the Citation and Notification of Penalty shall be sent to the employer. The letter shall refer to the original citation and penalty, state that they are withdrawn and direct that the letter be posted by the employer for 3 working days in those locations where the original citation was posted.
 - (2) When applicable to the specific situation (e.g., an employee representative participated in the walkaround inspection, the inspection was in response to a complaint signed by an employee or an employee representative, or the withdrawal resulted from an informal conference or settlement agreement in which an employee representative exercised the right to participate), a copy of the letter shall also be sent to the employee or the employee representative as appropriate.
- f. The instructions contained in this section, with appropriate modification, are also applicable to the amendment of the Notification of Failure to Abate Alleged Violation, KY-OSH-2B Form.
- g. The assistance of the General Counsel shall be sought when amendments cause complicated drafting problems.
- H. Settlement of Cases By Directors.

RESERVED

APPENDIX

SAVEs and AVDs

- A. <u>General.</u> The proper writing of citations is an essential part of the enforcement process. Specific instructions on how to complete the Citation and Notification of Penalty, KY-OSH-2 Form, are contained in the Integrated Management Information Systems (IMIS) Forms Manual.
- B. <u>SAVEs Manual.</u> The Standard Alleged Violation Elements (SAVEs) are incorporated into a manual that is used in conjunction with automated citation processing procedures. (See OSHA Instructions CPL 2.32A, 2.34 and 2.35.)
 - 1. <u>Purpose</u>. The SAVEs are designed to achieve the following goals:
 - a. Improve the quality of alleged violation descriptions.
 - b. Establish uniformity through standardized wording in Alleged Violation Descriptions (AVDs).
 - c. Promote uniform interpretation and application of standards.
 - d. Ensure legal adequacy of alleged violation descriptions.
 - e. Decrease lag time between inspection and citation.
 - f. Reduce CSHO and clerical time on case file preparation.
 - g. Reduce typographical and grammatical errors in citations.
 - 2. Scope. The term SAVE is used to describe that portion of an alleged violation description which can be stored within an automatic typing system and retrieved as needed. As it appears in the citation, an AVD is a complete description of an alleged violation consisting of a SAVE and other necessary variable elements applicable to a specific violation.
 - a. The SAVEs Manual does not include variable information. It lists the needed items of variable information in memory-jogger form under the SAVE.
 - b. If the inspection is a fatality/catastrophe investigation or other "after-the-fact" investigation, the AVD must include the date and time of employee exposure.

c. For multistep abatements, the variable information must include a description of each step together with the date by which that step must be completed. These will appear on the KY-OSH-2.

NOTE: The SAVEs Manual is not to be used as a substitute for the standards/regulations.

- 3. General Instructions. CSHOs using the SAVEs Manual shall:
 - a. Determine from the KY-OSH Program Safety and Health Standards/Regulations which specific standard/regulation is to be cited.
 - b. Search the SAVEs Manual for a corresponding SAVE. If one is listed, ensure that it is appropriate for the apparent violation noted. This is accomplished by comparing the SAVE with the standard/regulation.
 - c. Enter the SAVE's ID code at the appropriate place in accordance with current instructions. (SAVES are identified by their page and item numbers; e.g., I-351(2).) In addition, if the SAVE is recorded, enter the SAVE reference number (located in the left margin of the SAVE); e.g., L4b8.
 - d. Record the variable information required to complete the AVD. Include the date that the violation was observed if the inspection took more than one day to complete.
- 4. SAVEs Options. A SAVE option identifies a different requirement within a single standard/regulation.
 - a. If more than one requirement is covered by a single standard/regulation, these may be listed as options in the SAVEs Manual. Two or more options for the same standard/regulation shall not be listed on a citation as separate violations.
 - b. SAVEs have not been drafted for all possible combinations of violations of a standard. The options given may be combined in either of two ways:
 - (1) One method is to write a new SAVE including all the required information.
 - (2) The preferred method is to combine the applicable options by listing each such option as an individual subitem of a single alleged violation. The item number is listed as 1a, 1b, etc.

NOTE: The CSHO shall not confuse this combining

procedure with the instructions for grouping violations.

- 5. <u>Violations Without SAVES</u>. If there is not a SAVE that covers the alleged violation, the CSHO is required to develop the alleged violation description using the following format:
 - a. Past tense in all wording.
 - b. Plural wording; e.g., operators.
 - c. Use (a), (b), (c), etc., for sublocations.
 - d. Positive factual statements (eliminate "failed to" and "employer failed to").
- C. <u>Examples.</u> The following are some examples of how the SAVEs are properly used:
 - 1. SAVE for 1910.213(n)(3). This SAVE is not in the word processing system.
 - a. As It Appears in the SAVEs Manual. 29 CFR 1910.213(n)(3): Hoods or suitable guards were not provided to prevent the hands of the operators from coming in contact with the in-running rolls of feed rolls on :
 - (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S)
 AND/OR CONDITION(S)) (DESCRIBE HAZARD(S) WHERE
 NECESSARY)

NOTE: INDICATE WHETHER PLANING, MOLDING, STICKING, AND/OR MATCHING MACHINES ARE TO BE CITED.

- b. What the CSHO Must Specify.
 - (1) <u>Illustration 1.</u>
 - o Insert appropriate machine identification in body of SAVE; e.g., "planing machine."
 - o Enter appropriate variable information: Shop A, Northwest corner; e.g., Apex Planing Machine (serial #363-21).
 - (2) <u>Illustration 2.</u>
 - o Insert appropriate machine identification in body of SAVE: "Molding machine"
 - o Enter appropriate variable information:

Shop B, South wall-Baylor Molding Machine (serial #63546)

(3) <u>Illustration 3.</u>

- o If a combination of the same types of hazards on different machines covered by the same standard is noted during an inspection, insert appropriate machine identifications in body of SAVE: "planing machine" and "molding machine"
- o Enter appropriate variable information:
 - (a) Shop A, Northwest corner Apex Planing Machine (serial #363-21)
 - (b) Shop B, South wall Baylor Molding Machine (serial #63546)
- c. <u>Completed AVD (For Illustration 3) As It Appears on</u> the Citation.

29 CFR 1910.213(n)(3): Hoods or suitable guards were not provided to prevent the hands of the operators from coming in contact with the in-running rolls of feed rolls on planing machine and molding machine:

- (a) Shop A, Northwest Corner Apex Planing Machine (serial #363-21).
- (b) Shop B, South wall Baylor Molding Machine (serial #63546).
- 2. <u>SAVE for 1910.22(a)(2).</u> There are two options for this SAVE; however, only one of these options is illustrated.
 - a. As It Appears in the SAVEs Manual.

OPTION 1 L14b

29 CFR 1910.22(a)(2): Floors of workrooms were not maintained, as far as possible, in a dry condition:

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S)
 AND/OR CONDITION(S)) (DESCRIBE HAZARD(S) WHERE
 NECESSARY)
- b. What the CSHO Must Specify.
 - (1) Enter appropriate variable information: Machine shop, east end--water on floor around the "Dumas" injection machine.

- (2) Describe the hazard: A slippery condition subjecting employees to injury from falls.
- c. <u>Completed AVD as It Appears on the Citation.</u> 29 CFR 1910.22(a)(2): Floors of workrooms were not maintained, as far as possible, in a dry condition:
 - (a) Machine shop, east end--water on floor around the "Dumas" injection machine resulting in a slippery condition.

3. SAVE for a Standard with a General Requirement.

a. As It Appears in the SAVEs Manual.

OPTION 1

L3c7

29 CFR 1910.132(a): Protective equipment was not used when necessary whenever hazards capable of causing injury and impairment were encountered:

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S)
 AND/OR CONDITIONS) (DESCRIBE HAZARD(S) WHERE
 NECESSARY)
- b. What the CSHO Must Specify.
 - (1) Identify type of protective equipment needed; e.g., wire mesh gloves.
 - (2) Enter appropriate variable information: Deboning Department, main deboning table.
 - (3) Describe the hazard: Cuts to hands or body or employees cutting themselves.
- c. Completed AVD as It Appears on the Citation.
 - 29 CFR 1910.132(a): Protective equipment was not used when necessary whenever hazards capable of causing injury and impairment were encountered:
 - (a) Deboning Department, main deboning table, wire mesh gloves were not used to protect workers from the hazard of cutting themselves as a result of knives slipping during repeated boning operations.
- 4. SAVE for a Standard Incorporated by Reference.
 - a. As It Appears in the SAVEs Manual.

L29a

29 CFR 1910.101(b), Section 3.3.8, Compressed Gas Association Pamphlet P-1-1974, as adopted by 29 CFR 1910.101(b): Compressed gas cylinders were stored near elevators, gangways or in locations where heavy moving objects could strike or fall on them:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S)
AND/OR CONDITION(S)) (DESCRIBE HAZARD(S) WHERE
NECESSARY)

NOTE: APPLIES TO CYLINDERS ONLY, NOT TO WELDING, CUTTING AND BRAZING AS GIVEN IN 1910.252

b. What the CSHO Must Specify.

- (1) Insert the appropriate section number of the adopted standard, and the name of the adopted standard; e.g., 1910.101(b), Section 3.3.8, Compressed Gas Association Pamphlet P.1.1974.
- (2) Enter appropriate variable information: Main cylinder filling station, east end, adjacent to rampway used by powered industrial trucks.

c. Completed AVD as It Appears on the Citation.

29 CFR 1910.101(b) Section 3.3.8, Compressed Gas Association pamphlet P-1-1974, as adopted by 29 CFR 1910.101(b):
Compressed gas cylinders were stored near elevators, gangways or in locations where heavy moving objects

(a) Main cylinder filling station, east end, adjacent to rampway used by powered industrial trucks and subject to being struck by them.

5. SAVE for Citation of the General Duty Clause.

a. As It Appears in the SAVEs Manual.

L104

KRS Chapter 338.031 (1)(a):

could strike or fall on them:

The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees in that employees were exposed to:

(a) IDENTIFY THE HAZARD. DESCRIBE THE CONDITIONS OR PRACTICES WHICH ARE CREATING THE HAZARD. IDENTIFY THE SPECIFIC

OPERATION INVOLVED AND LOCATION. PROVIDE ONE FEASIBLE ABATEMENT METHOD WHICH IS ACCEPTABLE TO CORRECT THE HAZARD. THE STATEMENT SHOULD READ:

"ONE FEASIBLE AND ACCEPTABLE ABATEMENT METHOD, AMONG OTHERS, TO CORRECT THIS HAZARD IS. . . "

NOTE: See Chapter IV for determining the propriety of a general duty clause citation.

b. KRS Chapter 338.031 (1)(a) Violation.

Employees are entering a baling press box to clear out paper and cardboard that had jammed the baler. The machine is not electrically shut down and locked out and the ram is not blocked. Therefore, the employees are exposed to the hazard of inadvertent activation of the press ram which could cause death or serious injury. The KY-OSH Program does not have a lockout standard that applies to the hazard. This hazard can be cited as a violation of the general duty clause if it can be established that:

- (1) There is not an applicable Ky OSH Program standard.
- (2) Employees are exposed to a hazard that could cause serious physical harm.
- (3) The hazard is recognized by the industry.
- (4) There are feasible abatement methods to correct the hazard.

c. What the CSHO Must Specify.

- (1) Identify the recognized hazard: Death or serious injuries resulting from inadvertent activation of the baling press ram.
- (2) Give a method of correcting the hazard that is feasible and useful: Establish and enforce a plant lockout procedure.
- (3) Enter the appropriate variable information: Mill basement, baling press room.
- (4) Identify the consensus standard upon which the general duty citation is based.

d. Completed AVD as It Appears on the Citation.

KRS Chapter 338.031(1)(a): The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees in that employees were exposed to: inadvertent activation of the baling press ram while freeing the box from paper jams. Among other methods, one feasible and acceptable abatement method to correct this hazard is to establish and enforce an adequate plant lockout procedure such as that stipulated by ANSI Z 244.1-1982, Section 4 and 5, American National Standard of Minimum Safety Requirements for Lockout/Tagout of Energy Sources for Personnel Protection. Essential elements of the lockout procedure would include:

- Open and lock out the main power disconnect for the machine and bleed off any residual energy;
- Provide each potentially exposed employee working in the area with separate lock and key to be placed on the lockout means;
- Establish a written lockout policy, including procedures to be followed and training for all affected employees, both maintenance and operational crews;
- 4. Periodically evaluate the program and strictly enforce all of its provisions.

NOTE: Other elements may be added or revisions made to ones listed in the example as conditions dictate.

6. An Example of Combining SAVEs.

- 1a 29 CFR 1910.215(a)(4): Grinding machinery was not used with work rests to support off-hand grinding work:
 - (a) Northwest corner of machine shop Black & Decker bench grinder, serial #24693.
- 1b 29 CFR 1910.215(a)(4): Work rests on grinding machine were not adjusted closely to the wheel with a maximum opening of one-eighth inch:
 - (a) Northwest corner of machine shop Shopcraft stand grinder serial #10096, work rest 1 inch from wheel (left wheel).

7. An Example of Combining and Grouping SAVEs.

THE FOLLOWING ALLEGED VIOLATIONS HAVE BEEN GROUPED BECAUSE THEY INVOLVE SIMILAR OR RELATED HAZARDS THAT MAY INCREASE THE POTENTIAL FOR (INJURY RESULTING FROM AN ACCIDENT) OR (ILLNESS).

- 1a 29 CFR 1910.107(b)(1): Spray booths were not substantially constructed of steel, concrete or masonry:
 - (a) Paint shop, wood constructed paint spray booth.
- 1b 29 CFR 1910.107(b)(5)(i): The average air velocity over the open face of the paint spray booths was less than 100 linear feet per minute:
 - (a) Paint shop, paint spray booth, 60 linear feet per minute.
- 1c 29 CFR 1910.107(b)(5)(i): There were no visible gauges, audible alarms or pressure activated devices installed on paint spray booths to indicate or ensure that the required air velocity was maintained:
 - (a) Paint Shop, paint spray booth.
- 1d 29 CFR 1910.107(c)(7): Electric lamps outside of but within 20 feet of spraying areas, and not separated therefrom by a partitions, were not protected from physical damage by suitable guards or by location:
 - (a) 10 linear feet from the northwest corner of the paint spray booth, large finished 4' x 8' panels were handled and stacked directly beneath lights 9 feet above the floor.
- D. <u>Citing Health Violations.</u> In general, health citations are structured in the same manner as illustrated in the examples given in C.1. through 7. Health citations have certain characteristics that need to be highlighted.
 - 1. <u>Citations.</u> Health citations shall have item numbers identifying each standard violated. Within each item cited, instances observed which relate to that item shall be listed.
 - a. When one or more employees are exposed to different contaminants in 29 CFR 1910.1000, separate items shall describe the violations of the different contaminants. For example, overexposure to iron oxide fume (on a welder) and zinc oxide fume (on a ladle operator) or overexposure (on a pourer) to both iron oxide and

zinc oxide fumes would result in two separate items and two separate penalties on one serious citation.

- b. When more than one employee is exposed to the same hazard, the operations would be listed as separate instances for the same item. For example, overexposure to silica at different operations (sand slinger, shakeout operator, and muller) would result in one item with three instances and one penalty on a serious citation.
- c. When one or more employees are exposed to several contaminants covered by several standards, separate items shall describe the violations of the different contaminants. for example, overexposure to lead, silica and iron oxide on one employee would result in three separate items and three separate penalties on one serious citation.
- 2. <u>Specific Instructions.</u> When using SAVEs for health citations, the CSHO must include certain additional information in the alleged violation description over and above that required for safety citations in general. The following items must be identified in the variable information portion of the SAVE:
 - a. The exposure levels found during sampling for hazardous substances or for physical hazards and the dates on which the sampling was performed. For grouped items, when exposure information is identical, it is not necessary to repeat this information for each citation item. It will be sufficient to specify exposure conditions for the first item of the grouped citation and reference that item for the other items. (See E.4 and E.5 of this Appendix.)
 - b. The more significant health effects of hazardous substances. (See the Chemical Information Manual, OSHA Instruction CPL 2-2.43.)
 - c. Feasible engineering controls. Engineering controls shall be identified as existing and shall be presented in general outline. They shall be described as being one set of a number of possible methods, unless the facts indicate that these are the only feasible engineering controls.
 - d. Feasible administrative or work practice controls, if appropriate, using the guidelines given above for engineering controls to describe the controls.
- E. <u>Examples of Health SAVEs.</u> The use of health SAVEs is illustrated in the following examples:

- 1. SAVE for a Standard with a General Requirement.
 - a. As It Appears in the SAVEs Manual.

OPTION 1 L3c7

29 CFR 1910.132(a): Protective equipment was not used when necessary whenever hazards capable of causing injury and impairment were encountered:

- (a) (LOCATION) (IDENTIFY SPECIFIC OPERATION(S)
 AND/OR CONDITIONS) (DESCRIBE HAZARD(S) WHERE
 NECESSARY)
- b. What the CSHO Must Specify.
 - o Identify type of equipment needed; e.g., gloves impervious to hazardous substance.
 - o Identify health hazard and its effects; e.g., Scotch Brand Resin 5230, a serious skin irritant and sensitizer.
 - Identify the part of the body that was unprotected;
 e.g., the wrists and lower arms.
- c. Completed AVD as It Appears on the Citation.

29 CFR 1910.132(a): Protective equipment was not used when necessary whenever hazards capable of causing injury and impairment were encountered:

- (a) An employee working in the Fluidizer Room handling Scotch Brand Resin 5230 which is a serious skin irritant and sensitizer was wearing cotton gloves which were not impervious to the resin and did not protect the wrists and lower arms.
- 2. SAVE for a Respirator Violation.
 - a. As It Appears in the SAVEs Manual.

L3f6

29 CFR 1910.134(b)(3): The users of respirators were not instructed and trained in the proper use of respirators and their limitations:

- (a) (LOCATION, OPERATION AND/OR SPECIFIC RESPIRATORS)
- b. What the CSHO Must Specify.
 - o Identify the hazardous substance to which employees

are exposed; e.g., silica.

- o Identify the exposure level; e.g., in a sample containing 20% respirable quartz, a TWA of 1.4 Mg/M³, or 3 times the standard.
- o Identify the type of respirator used and any deficiencies noted; e.g., MSA Comfo II respirator with one strap removed and cartridges designed for use with organic vapors.
- o Identify the specific hazard under the standard cited; e.g., employee had not been trained in how to wear the respirator and was not familiar with the hazards of silica.

c. Completed AVD as It Appears on the Citation.

29 CFR 1910.134(b)(3): The users of respirators were not instructed and trained in the proper use of respirators and their limitations:

(a) An employee was exposed to silica dust with 20% respirable quartz at a TWA of 1.4 Mg/M³, 3 times the permissible exposure level, while chipping and grinding castings at the Number 7 Work Station in the Number 4 Grinding Enclosure in the Cleaning Room. The employee was not instructed in the proper use of the respirator and its limitations as evidenced by the fact that he was wearing an MSA Comfo II respirator which had one strap removed. Further the employee was not familiar with the health hazards of silica: February 23, 1988.

3. SAVE for a Ventilation Violation.

a. As It Appears in the SAVEs Manual.

29 CFR 1910.94(d)(9)(i): Employees working in and around open surface tank operations were not instructed as to job hazards and first aid procedures or personal protection applicable to these hazards:

(a) (LOCATION, TANK, CONDITIONS AND/OR CONTAMINANTS)

b. What the CSHO Must Specify.

- o Identify tanks involved; e.g., cadmium, nickel and chrome plating tanks.
- o Identify the hazards involved and their effects;

e.g., mixing cyanide salts with acid producing hydrogen cyanide, an asphyxiant.

c. Completed AVD as It Appears on the Citation.

29 CFR 1910.94(d)(9)(i): Employees working in and around open surface tank operations were not instructed as to job hazards and first aid procedures or personal protection applicable to these hazards:

(a) An employee working in the Plating Room near the cadmium, nickel and chrome plating tanks was exposed to the hazards of hydrogen cyanide inhalation, a chemical asphyxiant which can cause death, and the employee was not familiar with the hazard of mixing cyanide salts with acid nor with established emergency procedures.

4. SAVES for a Noise Violation.

a. As They Appear in the SAVEs Manual.

L295

29 CFR 1910.95(b)(1): Employees were subjected to sound levels exceeding those listed in Table G-16 of Subpart G of 29 CFR 1910 and feasible administrative or engineering controls were not utilized to reduce sound levels:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATIONS OR DEPARTMENT AND THE NUMBER OF EMPLOYEES EXPOSED) (DESCRIBE CONDITIONS INCLUDING DATE, SHIFT, NOISE LEVELS, SAMPLING PERIOD) (PROVIDE GENERAL METHODS OF CONTROL)

29 CFR 1910.95(i)(2)(i): The wearing of hearing protectors was not ensured for employees exposed to sound levels exceeding those listed in Table G-16 of 29 CFR 1910.95 as required by 29 CFR 1910.95(b)(1):

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATIONS AND/OR DEPARTMENTS AND THE NUMBER OF EMPLOYEES INVOLVED) (DESCRIBE CONDITIONS INCLUDING NOISE LEVELS, SAMPLING PERIOD AND DATES)

NOTE: Abatement normally will be multistep. Abatement steps shall be noted as follows:

ABATEMENT NOTE:

STEP 1:

As an interim protective measure and when administrative or engineering controls fail to reduce sound levels to within the levels of Table G-16, effective hearing protection shall be provided and used by all exposed employees. In addition, an effective hearing conservation program in accordance with 29 CFR 1910.95(c) through (n) shall be maintained.

STEP 2:

A written detailed plan of abatement shall be submitted to the Director of Compliance outlining a schedule for the implementation of engineering and/or administrative measures to control employee exposures to noise as referenced in this citation. This plan shall include, at a minimum, target dates for the following actions which must be consistent with the dates required by this citation:

- (1) Evaluation of engineering control options;
- (2) Selection of optimum control method and completion of design;
- (3) Procurement, installation and operation of selected control measures;
- (4) Testing and acceptance or modification/redesign of controls.

All proposed control measures shall be evaluated for each particular use by a competent industrial hygienist or other technically qualified person. 90-day progress reports are required during the abatement period.

NOTE: The 90-day requirement for the submission of progress reports may be shortened or lengthened by the supervisor depending on the specific circumstances.

STEP 3:

Abatement shall have been completed by the implementation of feasible engineering and/or administrative controls upon

verification of their effectiveness in achieving compliance.

b. What the CSHO Must Specify.

- o Identify the exposure level; e.g., Employee exposed to continuous noise levels at 196% of the allowable 8-hour time weighted average sound level (90 dBA). The equivalent dBA level of the 196% is approximately 97 dBA. The sampling was performed for 356 minutes during one shift on June 19, 1988. Zero exposure was assumed for the unsampled period of time (124 minutes).
 - o Outline the more significant health effects of overexposure.
 - o Document applicable control methods in general.
 - o Other appropriate abatement notes as indicated in the variable elements portion of the SAVE. (See also E. 4 c. following.)

c. Completed AVD as It Appears on the Citation.

THE FOLLOWING ALLEGED VIOLATIONS HAVE BEEN GROUPED BECAUSE THEY INVOLVE SIMILAR OR RELATED HAZARDS THAT MAY INCREASE THE POTENTIAL FOR ILLNESS.

- 1a 29 CFR 1910.95(b)(1): Employees were subjected to sound levels exceeding those listed in Table G-16 of Subpart G of 29 CFR 1910 and feasible administrative or engineering controls were not utilized to reduce sound levels:
 - (a) Seven (7) transfer operators in the conveyor building, No. 100, were exposed to continuous noise at 196% of the permissible daily noise exposure (8-hour time weighted average sound level of 90 dBA) or an equivalent sound level of approximately 97 dBA during the 356-minute sampling period on 06/19/88; exposure calculations included a zero increment for the 124 minutes not sampled.

General methods of control applicable in these circumstances include, but are not limited to, the following:

(1) Air intake muffling or isolation and vibration isolation on the Roots-Connersville blower model 52, serial number 100x, located in the

blower room, level 2.

- (2) Provision of a soundproof observation room/booth for operators.
- 1b 29 CFR 1910.95(i)(2)(i): The wearing of hearing protectors by employees who were exposed to sound levels exceeding those listed in Table G-16 of this section and who are required by paragraph 1910.95 (b)(1) to wear personal protective equipment was not ensured:
 - (a) Transfer operators as described in item 1a.

ABATEMENT NOTE:

STEP 1:

Due 6/30/88

As an interim protective measure and when administrative or engineering controls fail to reduce sound levels to within the levels of Table G-16, effective hearing protection shall be provided and used by all exposed employees. In addition, an effective hearing conservation program in accordance with 29 CFR 1910.95(c) through (n) shall be maintained.

STEP 2: Due 8/19/88

A written detailed plan of abatement shall be submitted to the Director of Compliance outlining a schedule for the implementation of engineering and/or administrative measures to control employee exposures to noise as referenced in this citation. This plan shall include, at a minimum, target dates for the following actions which must be consistent with the dates required by this citation:

- (1) Evaluation of engineering/administrative control options;
- (2) Selection of optimum control methods and completion of design;
- (3) Procurement, installation and operation of selected control measures;
- (4) Testing and acceptance or modification/redesign of controls. All control measures shall be evaluated for each particular use by a technically qualified person. All proposed control measures shall be evaluated for each particular use by a competent industrial

hygienist or other technically qualified person. 90-day progress reports are required during the abatement period.

STEP 3: Due 12/19/88

Correction shall have been completed by the implementation of feasible engineering and/or administrative controls upon verification of their effectiveness in achieving compliance.

- 5. SAVES for an Air Contaminant Violation.
 - a. As They Appear in the SAVEs Manual.

OPTION 3

29 CFR 1910.134(a)(2): The employer did not establish and maintain a respiratory protection program which included the requirements outlined in 29 CFR 1910.134(b):

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATIONS AND/OR DEPARTMENTS AND THE NUMBER OF EMPLOYEES EXPOSED) (DESCRIBE CONDITIONS INCLUDING SUBSTANCE AND EXPOSURE LEVELS, SAMPLING PERIOD AND ANY PERIOD ASSUMED AS ZERO, SHIFT AND DATE)

L939

29 CFR 1910.1000(c): Employees were exposed to materials in excess of the 8-hour time weighted average limits listed for those materials in Table Z-3 of Subpart Z of 29 CFR Part 1910:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATIONS AND/OR DEPARTMENTS AND THE NUMBER OF EMPLOYEES EXPOSED) (DESCRIBE CONDITIONS INCLUDING SUBSTANCE AND EXPOSURE LEVELS, SAMPLING PERIOD AND ANY PERIOD ASSUMED AS ZERO, SHIFT AND DATE)

L93d

29 CFR 1910.1000(e): Feasible administrative or engineering controls were not determined and implemented to reduce employee exposures:

(a) (LOCATION) (IDENTIFY SPECIFIC OPERATIONS INCLUDING EQUIPMENT, SERIAL AND MODEL NUMBERS, ETC.) (DESCRIBE CONDITIONS INCLUDING SUBSTANCE AND EXPOSURE LEVELS, SAMPLING PERIOD AND ANY PERIOD ASSUMED AS ZERO, SHIFT AND DATE) (GENERAL CONTROL METHODS APPLICABLE TO THE

SITUATION)

NOTE: Abatement normally will be multistep. Abatement steps shall be noted as follows:

ABATEMENT NOTE:

- STEP 1: Effective respiratory protection shall be provided to and used by exposed employees as an interim protective measure until feasible engineering and/or administrative controls can be implemented or whenever such controls fail to reduce employee exposure to within permissible exposure limits.
- STEP 2: A written detailed plan of abatement shall be submitted to the Director of Compliance outlining a schedule for the implementation of engineering and/or administrative measures to control employee exposures to hazardous substances as referenced in this citation. This plan shall include, at a minimum, target dates for the following actions which must be consistent with the abatement dates required by this citation:
 - (1) E v a l u a t i o n o f engineering/administrative control options;
 - (2) Selection of optimum control methods and completion of design;
 - (3) Procurement, installation and operation of selected control measures;
 - (4)Testing and acceptance or. modification/redesign controls. All proposed control measures shall be approved for particular each use by competent industrial hygienist or technically qualified person. 90-day progress reports are required during the abatement period.

NOTE: The 90-day requirement for the submission of progress

reports may be shortened or lengthened by the supervisor depending on the specific circumstances.

STEP 3: Abatement shall have been completed by the implementation of feasible engineering and/or administrative controls upon verification of their effectiveness in achieving compliance.

b. What the CSHO Must Specify.

- o Identify the exposure level; e.g., Employee exposed to respirable dust containing 20% crystalline silica (quartz) at a TWA level of 1.4 Mg/M3, approximately 3 times the limit of 0.45 Mg/M3; sampling performed 9/13/88 during a full shift. The exposure level is derived from two samples collected over a 450-minute sampling period.
- Outline the more significant health effects of overexposure.
- o Document applicable control methods in general.
- o Other appropriate abatement notes as indicated in the variable elements portion of the SAVE. (See also E. 5 c.)

c. Completed AVD as It Appears on the Citation.

- 1a 29 CFR 1910.134(a)(2): The employer did not establish and maintain a respiratory protection program which included the requirements outlined in 29 CFR 1910.134(b):
 - (a) Chipping and grinding operator (see description in item 1b); MSA Comfo II respirators were available but not in use.
- 1b 29 CFR 1910.1000(c): Employees were exposed to materials in excess of the 8-hour time weighted average limits listed for those materials in Table Z-3, Subpart Z, 29 CFR Part 1910:
 - (a) The chipping and grinding operator in the castings cleaning room identified as Number 4 grinding enclosure on 9/13/88 was exposed to respirable dust containing 20%

crystalline silica (quartz) at a TWA level of 1.4 Mg/M3, approximately 3 times the limit of 0.45 Mg/M3; this limit is established to prevent silicosis. The operator was cleaning castings, part number 438, using portable air-operated chippers and grinders during the full-day shift. The exposure level is derived from two samples collected over a 450-minute period.

- 1c 29 CFR 1910.1000(e): Feasible administrative and engineering controls were not determined and implemented to reduce employee exposures:
 - (a) Chipping and grinding operation. (See description in item 1b.)

General methods of control applicable in these circumstances include, but are not limited to, the following:

- (1) A more complete enclosure of the whole chipping and grinding operation.
- (2) Providing relatively dust-free makeup air.
- (3) Increasing the velocity of air flowing through the booth from an average of 45 f/m to at least that indicated by 29 CFR 1910.94(b).
- (4) Redesign bench layout to maximize dust capture and removal relative to worker position.

ABATEMENT NOTES:

STEP 1:

Due 10/22/88

Effective respiratory protection shall be provided to and used by exposed employees as an interim protective measure until feasible engineering and/or administrative controls can be implemented or whenever such controls fail to reduce employee exposure to within permissible exposure limits.

STEP 2:

Due 1/15/89

A written detailed plan of abatement shall be submitted to the Director of Compliance outlining

a schedule for the implementation of engineering and/or administrative measures to control employee exposures to hazardous substances as referenced in this citation. This plan shall include, at a minimum, target dates for the following actions which must be consistent with the abatement dates required by this citation:

- (1) Evaluation of engineering/administrative control options;
- (2) Selection of optimum control methods and completion of design;
- (3) Procurement, installation and operation of selected control measures;
- (4) Testing and acceptance or modification/redesign of controls. All proposed control measures shall be approved for each particular use by a competent industrial hygienist or other technically qualified person. 90-day progress reports are required during the abatement period.

STEP 3: Due 6/15/89

Abatement shall have been completed by the implementation of feasible engineering and/or administrative controls upon verification of their effectiveness in achieving compliance.